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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/718,346	11/24/2000	Masanori Iwahashi	107864	2592
25944	7590	06/04/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			PARKER, KENNETH	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

09/718,346

Applicant(s)

IWAHASHI, MASANORI

Examiner

Kenneth A Parker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/8/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 11-17 ~~1-5, 8 and 11-17~~ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 7, 9, 16 and 17 is/are allowed.
- 6) ☐ Claim(s) 1-5, 8 and 11-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 1-5, 8 and 10-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

What is meant by a transistor is formed in a substantially rectangular area cannot be determined. What defines the pixel and control element being "formed in a substantially rectangular area" is not clear. It does not appear to mean the area of the control element itself (which is typically long and skinny, so much of the prior art would meet the claimed limitation given this interpretation) or the pixel electrode itself, but it means some other vague area, which the examiner has no way of determining what feature applicant construes as providing the boundaries of. Alternatively, it appears that applicant means that the area is the area defined by control lines surrounding the control element and for that control element alone. This has been used as the interpretation for the area associated with the control elements for examining purposes, and the pixel electrode itself has been assumed to be the pixel region.

***Claim Rejections - 35 USC § 103***

**Claims 2, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemura 5757444 in view of Komatsubara et al 4519678.**

The rejection can be viewed from the reverse, with the Komatsubara as the secondary reference and Takemura as the primary. Takemura discloses a liquid crystal device with the

regions defined by the gate electrodes having a different aspect ratio than the pixels, but Takemura lacks the reflective electrode. Reflective devices were notoriously well known for better aperture ratios, because they did not lose the area where the transistor goes (the reflector extends over the transistor). Komatsubara et al evidences this with the discussion in the abstract of the higher opening ratio. Therefore, it would have been obvious to one of ordinary skill to employ a reflective device with the pixel electrode extending over the transistor for the benefit of improved aperture ratio.

***Allowable Subject Matter***

Claims 6-7, 9, 16-17 are allowed.

Claims 1, and 3-5 and 8 and 11-15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph as understood above and set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed have been fully considered but they are not persuasive. Applicant's arguments regarding the rejection under 112 and the references are not agreed with. The claims relate a vaguely defined "first regions" somewhat associated with the pixels and "rectangular regions" in which the drivers are formed. What features define the regions are not disclosed or claimed, and without some features on which to base them, there is no way to know what art to apply. For example, if applicant means that the rectangular regions are defined by crossing signal lines, one set of references apply. If applicant means that they are defined by a control

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element at four corners, another set of references apply, if applicant means they are regions centered around the control elements, and there edges are the midway point to another control element, a different set of references may be necessary. In summary, a rectangular region can't be defined by identifying a single point in the rectangle, some guidance is needed to determine where the edges of the regions are to be construed.

### ***Conclusion***

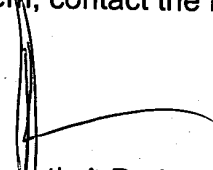
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Parker whose telephone number is 571-272-2298. The examiner can normally be reached on M-F 10:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kenneth A Parker  
Primary Examiner  
Art Unit 2871